

REMARKS

Applicants respectfully request further examination and reconsideration in view of the above amendments and the arguments set forth fully below. In the Office Action mailed November 30, 2004, claims 1-29 and 31 have been rejected. In response, the Applicants have submitted the following remarks, amended the specification, amended claims 1, 2, 5, 7-21 and 24, and cancelled claims 6 and 29. Accordingly, claims 1-5, 7-28 and 31 are pending. Favorable reconsideration is respectfully requested in view of the amended claims and the remarks below.

Rejections Under 35 U.S.C. §112, first paragraph

Within the Office Action, claims 7 and 9 have been rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. The Applicants respectfully disagree with this rejection.

It is stated within the Office Action that claim 7 is drawn to introducing conductive material via the electrode, and the Examiner cannot find support for this claim in the specification. The Applicants respectfully submit that claim 7 is appropriately supported in the specification. Specifically, claim 7 is supported in the specification on page 4, paragraph 14, and on page 9, paragraph 36.

By the present amendment, claim 9 has been cancelled. However, the Applicants respectfully submit that the subject matter of claim 9 is supported by the specification on page 10, paragraph 40. In paragraph 40, the specification disclosed "... molten conductive polymer 26 is introduced into required areas of the membrane 18 via holes in the wick or from the upper surface of external contacts 28a,b, by applying heat and pressure to force the polymer through the membrane...".

Rejections Under 35 U.S.C. §112, second paragraph

Within the Office Action, claims 1-29 and 31 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and

distinctly claim subject matter which Applicants regard as the invention. By the above amendment, the Applicants have amended claims 1, 2, 5, 7-21 and 24, and have cancelled claims 6, 9, 28 and 29. The Applicants respectfully submit that the claims have been amended in order to particularly point out and distinctly claim the subject matter which Applicants regard as the invention, as requested by the Examiner in the Office Action.

Regarding claim 13, it is stated within the Office Action that the use of the term "external connection" is further confusing. In particular, it is stated within the Office Action that if the Examiner presumes that the "external connection" is the same thing as the "electrical contact" of claim 1, it is unclear how claim 13 can depend from claim 1 when claim 1 requires the electrical contact to be on the opposite side of the membrane from the electrode. The Applicants respectfully submit that claim 13 is directed to an alternative embodiment of the present invention as depicted in Figure 3, wherein the electrical contact or contact pin 114 is on the same side of the membrane 134 as the electrode 136. For at least these reasons, claim 13 is definite and does particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Regarding claim 18, it is stated within the Office Action that it is unclear how to interpret "a portion of the electrode... is impregnated with conductive material". In particular, it is stated within the Office Action that an electrode is inherently a conductive material already and that it is unclear whether the electrode must be partially impregnated with conductive material other than its own electrode material. The Applicants respectfully submit that the electrode indeed is partially impregnated with conductive material other than its own electrode material, as is disclosed in the specification. For at least these reasons, claim 18 is definite and does particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Regarding claim 31, it is stated within the Office Action that the specification indicates that the membrane is "impervious to liquid" and has "liquid impermeability". It is also stated within the Office Action that if this is the case, then how can the melted conductive material emerge through the membrane? The Applicants respectfully submit

that the melted conductive material is drawn through the membrane under controlled conditions by establishing a pressure differential across the first and second surfaces. The Applicants respectfully submit that the membrane remains impervious to liquid and permeable to gas in normal operation, and the permeability to allow the conductive material to be drawn through the membrane is temporary and only possible under the outlined and claimed controlled circumstances. For at least these reasons, claim 31 is definite and does particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Rejections Under 35 U.S.C. §102

Within the Office Action, claims 1, 7-9, 12, 13, 18-23 and 27 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,314,605 to Matthiessen (hereinafter Matthiessen). Applicants respectfully disagree with this rejection.

It is stated within the Office Action that claims 6 and 29 would be allowable if rewritten to overcome the rejections under 35 U.S.C. §112, second paragraph, set forth in this Office Action if these claims included all of the limitations of the base and any intervening claims. Accordingly, the Applicants have amended claims 1 and 18 to include the limitations of claims 6 and 29, respectfully. Furthermore, the Applicants submit that in light of the above amended claims and remarks, the Applicants have overcome the rejections under 35 U.S.C. §112, second paragraph. For at least these reasons, the independent claims 1 and 18 are allowable over the teachings of Matthiessen.

Claims 7, 8, 12, 13, 18-23 and 27 are dependent upon the independent claims 1 and 18. As discussed above, the independent claims 1 and 18 are allowable over the teachings of Matthiessen. Accordingly, claims 7-9, 12, 13, 18-23 and 27 are also allowable as being dependent upon an allowable base claim.

Rejections Under 35 U.S.C. §103

Within the Office Action, claims 2-5, 24-26 and 28 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Matthiessen in view of WO99/24826. Claims 2-5 and 24-26 depend upon the independent claims 1 and 18. As discussed above, the independent claims 1 and 18 are allowable over the teachings of Matthiessen. Accordingly, claims 2-5 and 24-26 are also allowable as being dependent upon an allowable base claim.

Within the Office Action, claims 2-5 and 28 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Matthiessen in view of U.S. Patent No. 4,322,278 to Cromer (hereinafter Cromer). Claims 2-5 are dependent upon the independent claims 1 and 18. As discussed above, the independent claims 1 and 18 are allowable over the teachings of Matthiessen. Accordingly, claims 2-5 are also allowable as being dependent upon an allowable base claim.

Within the Office Action, claims 10, 11 and 24-28 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Matthiessen in view of U.S. Patent No. 5,173,166 to Tomantschger et al (hereinafter Tomantschger). Claims 10, 11 and 24-27 are dependent upon the independent claims 1 and 18. As discussed above, the independent claims 1 and 18 are allowable over the teachings of Matthiessen. Accordingly, claims 10, 11 and 24-27 are also allowable as being dependent upon an allowable base claim.

Within the Office Action, claims 14 and 15 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Matthiessen in view of U.S. Patent No. 5,914,019 to Dodgson et al (hereinafter Dodgson). Claims 14 and 15 are dependent upon the independent claim 1. As discussed above, the independent claim 1 is allowable over the teachings of Matthiessen. Accordingly, claims 14 and 15 are also allowable as being dependent upon an allowable base claim.

Within the Office Action, claims 16 and 17 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Matthiessen in view of U.S. Patent No. 4,132,616 to

Application No. 10/069,209
Amendment Dated February 15, 2005
Reply to Office Action of November 30, 2004

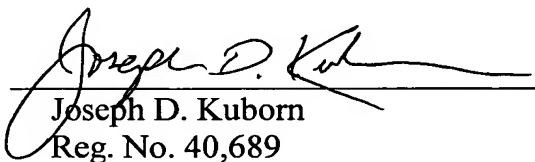
Tantram et al (hereinafter Tantram). Claims 16 and 17 are dependent upon the independent claim 1. As discussed above, the independent claim 1 is allowable over the teachings of Matthiessen. Accordingly, claims 16 and 17 are also allowable as being dependent upon an allowable base claim.

In addition to claims 6 and 29 as discussed above, it is stated within the Office Action that claim 31 would be allowable if rewritten or amended to overcome the rejections under 35 U.S.C. §112, second paragraph, as set forth in this Office Action. The Applicants respectfully submit that by the above amendments and remarks, the Applicants have overcome the rejections under 35 U.S.C. §112, second paragraph, and that therefore, claim 31 is allowable as particularly pointing out and distinctly claiming the subject matter which Applicants regard as the invention.

For these reasons, Applicants respectfully submit that claims 1-8, 10-27 and 31 are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at 414-271-7590 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,

ANDRUS, SCEALES, STARKE & SAWALL, LLP

By 
Joseph D. Kuborn
Reg. No. 40,689

Andrus, Sceales, Starke & Sawall, LLP
100 East Wisconsin Avenue, Suite 1100
Milwaukee, Wisconsin 53202
Telephone: (414) 271-7590
Facsimile: (414) 271-5770